

CLAIMS

1 An image pick-up apparatus comprising:

a solid-state image pick-up device for performing photo-electric conversion in accordance with a received image pick-up light;

switching means for performing switching between first mode serving as image pick-up mode where charges stored in the solid-state image pick-up device are read out every n (n is natural number) frames to output a CCD (Charge Coupled Device) output signal and second mode serving as image pick-up mode where charges stored in the solid-state image pick-up device are read out every m (m is natural number) fields to add odd charges and even charges which are adjacent in a vertical direction of the charges which have been read out while changing the combination thereof every m fields to output a CCD (Charge Coupled Device) output signal; and

control mean for controlling the switching means in such a manner to switch the image pick-up mode of the image pick-up apparatus into the first mode in accordance with image pick-up request at a low output sensitivity, and to switch the image pick-up mode of the image pick-up apparatus into the second mode in accordance with image pick-up request at a high output sensitivity.

2 The image pick-up apparatus as set forth in claim 1, comprising:

gain adjustment means for adjusting gain of an image pick-up signal outputted from the solid-state image pick-up device,

wherein the control means controls the switching means so as to switch the image pick-up mode of the image pick-up apparatus into either the first mode or the second mode in accordance with the gain adjusted by the gain adjustment means.

3 The image pick-up apparatus as set forth in claim 1,

wherein the control means controls the switching means so as to switch the image pick-up mode of the image pick-up apparatus into either the first mode or the second mode in accordance with storage time of the charges stored in the solid-state image pick-up device.

4 An image pick-up method comprising:

performing photo-electric conversion by a solid-state image pick-up device in accordance with a received image pick-up light;

performing switching into first mode serving as image pick-up mode where charges stored in the solid-state image pick-up device are read out every n (n is natural number) frames in accordance with image pick-up request at a low output sensitivity to output a CCD (Charge Coupled Device) output signal; and

performing switching into second mode serving as image pick-up mode where charges stored in the solid-state image pick-up device are read out every m (m is natural number) fields in accordance with image pick-up request at a high output sensitivity to add odd charges and even charges which are adjacent in a vertical direction of the charges which have been read out while changing the combination thereof every m fields to output a CCD (Charge Coupled Device)

output signal, thus to perform image pick-up operation.

5 The image pick-up method as set forth in claim 4, comprising:

adjusting gain of an image pick-up signal outputted from the solid-state image pick-up device to switch the image pick-up mode into either the first mode or the second mode in accordance with the adjusted gain to perform image pick-up operation.

6 The image pick-up method as set forth in claim 4, comprising:

switching the image pick-up mode into either the first mode or the second mode in accordance with storage time of the charges stored in the solid-state image pick-up device to perform image pick-up operation.